

IN THE CLAIMS:

The text of all pending claims are set forth below. Cancelled claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strike through~~. The status of each claim is indicated with one of (original), (currently amended), (previously presented), (cancelled), (withdrawn), or (new).

Please AMEND the claims in accordance with the following:

1. (Currently Amended) A personal authentication system using biometrics information, which identifies or authenticates an individual ~~using biometrics information by~~ verifying to-be-verified biometrics characteristic data (obtained from to-be-verified biometrics information acquired at the time of the identification or authentication) against previously registered biometrics characteristic data (previously extracted for registration from to-be-registered biometrics information acquired at a time of user registration), said system comprising:
 - a biometrics information inputting section having a function to acquire the to-be-verified biometrics information;
 - a biometrics information converting section ~~for converting said~~ to-be-verified biometrics information, acquired through said biometrics information inputting section, into a state to be acquired on a predetermined acquisition condition, said predetermined acquisition condition being a same condition under which the registered biometric information was acquired; and
 - a biometrics characteristic data extracting section ~~for extracting~~ to-be-verified biometrics characteristic data from the to-be-verified biometrics information obtained by the conversion in said biometrics information converting section.

2. (Currently Amended) A personal authentication system using biometrics information according to claim 1, wherein said biometrics information inputting section is of a type acquiring said to-be-verified biometrics information as image data, and said biometrics information converting section converts said to-be-verified biometrics information, acquired through said biometrics information inputting section, into image data with a predetermined

resolution included in said predetermined acquisition condition.

3. (Currently Amended) A personal authentication system using biometrics information according to claim 1, wherein said biometrics information inputting section is of a type acquiring said to-be-verified biometrics information as image data, and said biometrics information converting section converts said to-be-verified biometrics information, acquired through said biometrics information inputting section, into image data with a predetermined resolution and predetermined numbers of pixels in vertical and horizontal directions, included in said predetermined acquisition condition.

4. (Currently Amended) A personal authentication system using biometrics information according to claim 1, wherein said biometrics information inputting section is of a type acquiring said to-be-verified biometrics information as image data, and said biometrics information converting section converts said to-be-verified biometrics information, acquired through said biometrics information inputting section, into image data with a predetermined image characteristic included in said predetermined acquisition condition.

5. (Currently Amended) A personal authentication system using biometrics information according to claim 1, wherein said biometrics information inputting section is of a type acquiring said to-be-verified biometrics information as time series data, and said biometrics information converting section converts said to-be-verified biometrics information, acquired through said biometrics information inputting section, into time series data with a predetermined sampling period included in said predetermined acquisition condition.

6. (Currently Amended) A personal authentication system using biometrics information according to claim 1, wherein said biometrics information inputting section is of a type acquiring to-be-verified fingerprint information as said biometrics information in the form of image data, and said biometrics information converting section converts said to-be-verified fingerprint information, acquired through said biometrics information inputting section, into image data with a predetermined relationship in brightness between ridge lines and trough lines, included in said predetermined acquisition condition.

7. (Original) A personal authentication system using biometrics information according to claim 6, wherein a brightness relationship judging section is provided to judge a relationship in brightness between ridge lines and trough lines in said fingerprint information acquired through said biometrics information inputting section, and said biometrics information converting section conducts conversion processing of image data in accordance with the judgment of the brightness relationship judging section.

8. (Withdrawn) A personal authentication system using biometrics information, which identifies or authenticates an individual using biometrics information, comprising:

- a biometrics information inputting section having a function to acquire biometrics information;

- a biometrics characteristic data extracting section for extracting biometrics characteristic data from the biometrics information acquired through said biometrics information inputting section;

- an acquisition condition attaching section for attaching, to said biometrics information to be inputted from said biometrics information inputting section to said biometrics characteristic data extracting section, an acquisition condition related to said biometrics information; and

- a biometrics information converting section for, before the extraction of said biometrics characteristic data from said biometrics information in said biometrics characteristic data extracting section, converting said biometrics information into a state to be acquired on a predetermined acquisition condition, in accordance with said acquisition condition attached to said biometrics information.

9. (Withdrawn) A personal authentication system using biometrics information according to claim 8, wherein said biometrics information inputting section is of a type acquiring said biometrics information as image data, and said acquisition condition attaching section attaches a resolution as said acquisition condition to said biometrics information, and said biometrics information converting section converts said biometrics information into image data with a predetermined resolution on the basis of said resolution attached to said biometrics information.

10. (Withdrawn) A personal authentication system using biometrics information according to claim 8, wherein said biometrics information inputting section is of a type acquiring said biometrics information as image data, and said acquisition condition attaching section attaches a resolution and the numbers of pixels in vertical and horizontal directions, as said acquisition condition, to said biometrics information, and said biometrics information converting section converts said biometrics information into image data with a predetermined resolution and predetermined numbers of pixels in vertical and horizontal directions, on the basis of the resolution and the numbers of pixels in vertical and horizontal directions attached to said biometrics information.

11. (Withdrawn) A personal authentication system using biometrics information according to claim 8, wherein said biometrics information inputting section is of a type acquiring said biometrics information as time series data, and said acquisition condition attaching section attaches a sampling period as said acquisition condition to said biometrics information, and said biometrics information converting section converts said biometrics information into time series data with a predetermined sampling period, on the basis of said sampling period attached to said biometrics information.

12. (Withdrawn) A personal authentication system using biometrics information according to claim 8, wherein said biometrics information inputting section is of a type acquiring fingerprint information as said biometrics information in the form of image data, and said acquisition condition attaching section attaches, to said fingerprint information as said acquisition condition, a relationship in brightness between ridge lines and trough lines in said fingerprint information, and said biometrics information converting section converts said fingerprint information into image data with a predetermined brightness relationship, on the basis of said brightness relationship attached to said fingerprint information.

13. (Withdrawn) A personal authentication system using biometrics information, which identifies or authenticates an individual using biometrics information, comprising:
a biometrics information inputting section having a function to acquire biometrics

information;

a biometrics characteristic data extracting section for extracting biometrics characteristic data from said biometrics information acquired through said biometrics information inputting section;

a biometrics characteristic data registering section for previously preserving registration biometrics characteristic data extracted from biometrics information;

a biometrics characteristic data verifying section for verifying that verification biometrics characteristic data on a person forming a subject of verification, obtained through said biometrics information inputting section and said biometrics characteristic data extracting section, matches said registration biometrics characteristic data on the same verification person registered and preserved previously in said biometrics characteristic data registering section;

an acquisition condition attaching section for attaching, to biometrics characteristic data to be inputted from said biometrics characteristic data extracting section to said biometrics characteristic data registering section or said biometrics characteristic data verifying section, an acquisition condition related to the biometrics information being an extraction source of said biometrics characteristic data; and

a biometrics characteristic data converting section for, before the verifying that said verification biometrics characteristic data matches said registration biometrics characteristic data in said biometrics characteristic data verifying section, converting at least one of said verification biometrics characteristic data and said registration biometrics characteristic data in accordance with said acquisition condition attached to said verification biometrics characteristic data and said registration biometrics characteristic data to convert said verification biometrics characteristic data and said registration biometrics characteristic data into data to be obtained on the same acquisition condition.

14. (Withdrawn) A personal authentication system using biometrics information, which identifies or authenticates an individual using biometrics information, comprising:

a biometrics information inputting section having a function to acquire biometrics information;

a biometrics characteristic data extracting section for extracting biometrics characteristic data from said biometrics information acquired through said biometrics information inputting

section;

a biometrics characteristic data registering section for previously preserving registration biometrics characteristic data extracted from biometrics information;

a biometrics characteristic data verifying section for verifying that verification biometrics characteristic data on a person forming a subject of verification, obtained through said biometrics information inputting section and said biometrics characteristic data extracting section, matches said registration biometrics characteristic data on the same verification person registered and preserved previously in said biometrics characteristic data registering section;

a verification mode version attaching section for attaching, to biometrics characteristic data to be inputted from said biometrics characteristic data extracting section to said biometrics characteristic data registering section or said biometrics characteristic data verifying section, a version of verification mode related to said biometrics characteristic data; and

a biometrics characteristic data converting section for, before verifying that said verification biometrics characteristic data matches said registration biometrics characteristic data in said biometrics characteristic data verifying section, converting at least one of said verification biometrics characteristic data and said registration biometrics characteristic data on the basis of said verification mode version attached to said verification biometrics characteristic data and said registration characteristic data to convert said verification biometrics characteristic data and said registration biometrics characteristic data into data corresponding to the same verification mode version.

15. (Withdrawn) A personal authentication system using biometrics information, which identifies or authenticates an individual using biometrics information, comprising:

a biometrics information inputting section having a function to acquire biometrics information;

a biometrics characteristic data extracting section for extracting biometrics characteristic data from said biometrics information acquired through said biometrics information inputting section;

a biometrics characteristic data registering section for previously preserving registration biometrics characteristic data extracted from biometrics information;

a biometrics characteristic data verifying section for verifying that verification biometrics

characteristic data on a person forming a subject of verification, obtained through said biometrics information inputting section and said biometrics characteristic data extracting section, matches said registration biometrics characteristic data on the same verification person registered and preserved previously in said biometrics characteristic data registering section; and

a biometrics characteristic data converting section for, when a change of verification mode in said biometrics characteristic data verifying section takes place, converting collectively all registration biometrics characteristic data, registered in said biometrics characteristic data registering section, into biometrics characteristic data corresponding to the verification mode after the change.

16. (Withdrawn) A personal authentication system using biometrics information, which identifies or authenticates an individual using biometrics information, comprising:

a biometrics information inputting section having a function to acquire biometrics information;

a biometrics characteristic data extracting section for extracting biometrics characteristic data from said biometrics information acquired through said biometrics information inputting section;

a biometrics characteristic data registering section for previously preserving auxiliary biometrics characteristic data besides biometrics characteristic data essential to the identification and authentication as registration biometrics characteristic data extracted from biometrics information; and

a biometrics characteristic data restructuring section for, when a change of kind of said biometrics characteristic data to be used for the identification and authentication takes place, restructuring new registration biometrics characteristic data according to the change through the use of the essential biometrics characteristic data and said auxiliary biometrics characteristic data.

17. (Withdrawn) A personal authentication system using biometrics information, which identifies or authenticates an individual using biometrics information, comprising:

a biometrics information inputting section having a function to acquire biometrics

information;

a biometrics characteristic data extracting section for extracting biometrics characteristic data from said biometrics information acquired through said biometrics information inputting section;

a biometrics characteristic data registering section for previously preserving registration biometrics characteristic data extracted from said biometrics information and said biometrics information being an extraction source of said registration biometrics characteristic data; and

a biometrics characteristic data restructuring section for, when a change of kind of the biometrics characteristic data to be used for the identification and authentication takes place, extracting and restructuring new registration biometrics characteristic data from said biometrics information being the extraction source of said registration biometrics characteristic data according to the change.

18. (Withdrawn) A personal authentication system using biometrics information according to claim 16, further comprising:

a biometrics characteristic data verifying section made to handle a plurality of verification modes, for verifying that verification biometrics characteristic data on a person forming a subject of verification, obtained through said biometrics information inputting section and said biometrics characteristic data extracting section, matches registration biometrics characteristic data on the same subject person, previously registered and preserved in said biometrics characteristic data registering section; and

a verification mode version attaching section for attaching, to biometrics characteristic data to be inputted from said biometrics characteristic data extracting section to said biometrics characteristic data registering section or said biometrics characteristic data verifying section, a verification mode version related to said biometrics characteristic data,

when verification mode versions respectively attached to said verification biometrics characteristic data and the registration biometrics characteristic data between which verification is made in said biometrics characteristic data verifying section does not agree with each other, said biometrics characteristic data restructuring section restructuring one of said verification biometrics characteristic data and said registration biometrics characteristic data into biometrics characteristic data needed for a verification mode corresponding to the verification mode version

for the other biometrics characteristic data.

19. (Withdrawn) A personal authentication system using biometrics information according to claim 17, further comprising:

a biometrics characteristic data verifying section made to handle a plurality of verifying modes, for verifying that verification biometrics characteristic data on a person forming a subject of verification, obtained through said biometrics information inputting section and said biometrics characteristic data extracting section, matches registration biometrics characteristic data on the same subject person, previously registered and preserved in said biometrics characteristic data registering section; and

a verification mode version attaching section for attaching, to biometrics characteristic data to be inputted from said biometrics characteristic data extracting section to said biometrics characteristic data registering section or said biometrics characteristic data verifying section, a verification mode version related to said biometrics characteristic data,

when verification mode versions respectively attached to said verification biometrics characteristic data and the registration biometrics characteristic data between which verification is made in said biometrics characteristic data verifying section does not agree with each other, said biometrics characteristic data restructuring section restructuring one of said verification biometrics characteristic data and said registration biometrics characteristic data into biometrics characteristic data needed for a verification mode corresponding to the verification mode version for the other biometrics characteristic data.

20. (Withdrawn) A personal authentication system using biometrics information, which identifies or authenticates an individual using biometrics information, comprising:

a verification mode version attaching section for attaching a verification mode version to biometrics characteristic data extracted from said biometrics information; and

a biometrics characteristic data verifying section for performing verification processing using said biometrics characteristic data in a verification mode corresponding to said verification mode version attached to said biometrics characteristic data.

21. (Withdrawn) A personal authentication system using biometrics information, which

identifies or authenticates an individual using biometrics information, comprising:

- a biometrics information inputting section having a function to acquire biometrics information;

- a biometrics characteristic data extracting section for extracting biometrics characteristic data, to be needed in a plurality of verification modes, from biometrics information acquired through said biometrics information inputting section;

- a biometrics characteristic data registering section for previously preserving registration biometrics characteristic data extracted from biometrics information;

- a biometrics characteristic data verifying section made to handle a plurality of verification modes, for verifying that verification biometrics characteristic data on a person forming a subject of verification, obtained through said biometrics information inputting section and said biometrics characteristic data extracting section, matches registration biometrics characteristic data on the same subject person, previously preserved in said biometrics characteristic data registering section; and

- a verification mode version attaching section for attaching, to registration biometrics characteristic data to be inputted from said biometrics characteristic data extracting section to said biometrics characteristic data registering section, a verification mode version related to said registration biometrics characteristic data,

wherein said biometrics characteristic data extracting section extracts, as said verification biometrics characteristic data, biometrics characteristic data to be needed in a verification mode corresponding to the verification mode version attached to said registration biometrics characteristic data, from the biometrics information acquired through said biometrics information inputting section.

22. (Withdrawn) A personal authentication system using biometrics information according to claim 21, wherein said biometrics characteristic data verifying section verifies that said registration biometrics characteristic data matches said verification biometrics characteristic data extracted by said biometrics characteristic data extracting section, and when a verification result of said biometrics characteristic data verifying section shows a matching rate equal to or larger than a predetermined value and said verification mode version is older than a predetermined version, said biometrics characteristic data extracting section extracts biometrics

characteristic data for the latest verification mode from said biometrics information so that the extracted biometrics characteristic data is re-registered as new registration biometrics characteristic data in said biometrics characteristic data registering section.

23. (Withdrawn) A personal authentication system using biometrics information, which identifies or authenticates an individual using biometrics information, comprising:

- a biometrics information inputting section having a function to acquire biometrics information;

- a biometrics characteristic data extracting section for extracting biometrics characteristic data from biometrics information acquired through said biometrics information inputting section;

- a biometrics characteristic data registering section for previously preserving registration biometrics characteristic data extracted from biometrics information,

- a biometrics characteristic data verifying section made to handle a plurality of verification modes, for verifying that verification biometrics characteristic data on a person forming a subject of verification, obtained through said biometrics information inputting section and said biometrics characteristic data extracting section, matches registration biometrics characteristic data on the same subject person, previously registered and preserved in said biometrics characteristic data registering section; and

- a verification mode version attaching section for attaching, to biometrics characteristic data to be inputted from said biometrics characteristic data extracting section to said biometrics characteristic data registering section and said biometrics characteristic data verifying section, a verification mode version related to said biometrics characteristic data,

- wherein said biometrics characteristic data extracting section extracts separately dependence data depending on a verification mode and common data to be used in common among all verification modes without depending on a verification mode,

- while, when the verification mode version attached to said verification biometrics characteristic data does not match the verification mode version attached to said registration biometrics characteristic data, said biometrics characteristic data verifying section conducts the verification using said common data in said verification biometrics characteristic data and said registration biometrics characteristic data.

24. (Withdrawn) A client-server type personal authentication system in which a client side extracts verification biometrics characteristic data from biometrics information on an individual while a server side performs biometrics characteristic data for identification and authentication of said individual,

said client side comprising:

a biometrics information inputting section having a function to acquire biometrics information;

a biometrics characteristic data extracting section for extracting biometrics characteristic data, to be needed in a plurality of verification modes, from biometrics information acquired through said biometrics information inputting section; and

a verification mode version attaching section for attaching, to registration biometrics characteristic data to be sent from said biometrics characteristic data extracting section to said server side, a verification mode version related to said registration biometrics characteristic data,

while said server side comprising:

a biometrics characteristic data registering section for previously preserving said registration biometrics characteristic data from said client side together with said verification mode version; and

a biometrics characteristic data verifying section made to handle a plurality of verification modes, for verifying that verification biometrics characteristic data on a person forming a subject of verification from said client side matches registration biometrics characteristic data on the same subject person previously preserved in said biometrics characteristic data registering section,

wherein said verification mode version attached to said registration biometrics characteristic data is communicated from said server side to said biometrics characteristic data extracting section on said client side, and said biometrics characteristic data extracting section extracts biometrics characteristic data, to be needed in a verification mode corresponding to said verification mode version communicated from said server side, as said verification biometrics characteristic data from biometrics information acquired through said biometrics information inputting section.

25. (Withdrawn) A client-server type personal authentication system in which a client side extracts verification biometrics characteristic data from biometrics information on an individual while a server side verifies biometrics characteristic data for identification and authentication of the individual, said client side comprising:

a biometrics information inputting section having a function to acquire biometrics information;

a biometrics characteristic data extracting section for extracting biometrics characteristic data from biometrics information acquired through said biometrics information inputting section; and

an acquisition condition attaching section for attaching, to registration biometrics characteristic data to be sent from said biometrics characteristic data extracting section to said server side, an acquisition condition related to said registration biometrics characteristic data in said biometrics information inputting section,

while said server side comprising:

a biometrics characteristic data registering section for previously preserving said registration biometrics characteristic data from said client side together with said acquisition condition; and

a biometrics characteristic data verifying section for verifying that verification biometrics characteristic data on a person forming a subject of verification from said client side matches registration biometrics characteristic data on the same subject person previously preserved in said biometrics characteristic data registering section,

wherein said acquisition condition attached to said registration biometrics characteristic data is communicated from said server side to said biometrics characteristic data extracting section on said client side, and said biometrics characteristic data extracting section extracts biometrics characteristic data under said acquisition condition communicated from the server side, as said verification biometrics characteristic data from biometrics information acquired through said biometrics information inputting section.

26. (New) An apparatus according to claim 1, wherein before the converting by the converting section, the biometrics information inputting section acquires the to-be-verified biometrics information in a state according to another predetermined acquisition condition that is

different than the predetermined acquisition condition under which the registered biometric information was previously acquired, and where after being converted the state of the acquired to-be-verified biometrics information is a same state as the previously registered biometrics characteristics data.